

AMENDMENT

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one of said magnet faces, each of said plates comprising a plurality of recesses about an outer perimeter of the plate to form radially extending magnetic pole pieces, which extend beyond an outer perimeter of said magnet faces, said plates being oriented so that said recesses and pole pieces on a first one of said plates are aligned with said recesses and pole pieces on the second of said plates, wherein opposed recesses on said first and second plates define passage means for said fluid and wherein opposed said pole pieces on said first and second plates define regions to which ferromagnetic material is attracted and retained.

¹³
16. (New) A device as claimed in claim ¹²15, wherein said opposed recesses on said first and second plates also define regions from which ferromagnetic material is repelled.

¹⁴
17. (New) A device as claimed in claim ¹²15, wherein said magnet and said metal plates are each provided with a central hole which is adapted to receive a tube through which fluid can pass, said tube providing means for isolating, within the device, fluid passage in said tube from fluid flow through said recesses.

¹⁵
18. (New) A device as claimed in claim ¹²15, further comprising a distribution plate having a plurality of apertures which are alignable with said recesses, said apertures being the only passage means of fluid to said metal plates.

¹⁶
19. (New) A device as claimed in claim ¹⁵18, wherein said distribution plate, said magnet and said metal plates are each provided with a central hole which is adapted to receive a tube through which fluid can pass, said tube providing means for isolating, within the device, fluid passage in said tube from fluid flow through said recesses.

¹⁷
20. (New) A device as claimed in claim ¹⁶19, wherein an outer face of said tube is provided with a recess which can receive retaining means which is able to keep said distribution plate in abutment with an axially closer of said metal plates.

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18/21. (New) A device as claimed in claim 15¹², wherein the distribution plate is made of a non-ferromagnetic material.

19/22. (New) A device as claimed in claim 15¹², wherein each of said recesses is further provided with one or a plurality of slots.

20/23. (New) A device as claimed in claim 15¹², wherein an outer edge of each of said pole pieces is further provided with one or a plurality of slots.

21/24. (New) A device as claimed in claim 15¹², wherein the outer edges of said facing pole pieces are curved towards one another.

22/25. (New) A device as claimed in claim 15¹², further comprising means for maintaining said recesses and said apertures in alignment.

23/26. (New) A device as claimed in claim 15¹², wherein said magnet comprises a material which will generate a magnetic field between said metal plates of sufficient strength to attract ferromagnetic material from fluid passing therebetween.

24/27. (New) A device as claimed in claim 15¹², wherein the metal plate which is impinged first by fluid flow through the device is thicker than said other metal plate through which said fluid leaves the device.

25/28. (New) A device as claimed in claim 15¹², further comprising a housing having means at one end for receipt by a containing means of said fluid, said containing means comprising an input means and an output means, said housing having means at the other end to receive a fluid filter, an output of which fluid filter is continuous with a fluid passageway passing through an aperture in said magnet and also continuous with the input means to said containing means, said output means from said containing means being continuous with said apertures in said recesses in said metal plates.

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~~26~~ 29. (New) A device as claimed in claim ¹⁵~~18~~, further comprising a housing having means at one end for receipt by a containing means of said fluid, said containing means comprising an input means and an output means, said housing having means at the other end to receive a fluid filter, an output of which filter is continuous with a tube extending through an aperture in said magnet and also continuous with the input means to said containing means, said output means from said containing means being continuous with said apertures in said distribution plate and said recesses in said metal plates.

~~118~~ ~~16~~ ~~27~~ 30. (New) A magnetic filter device for filtering ferromagnetic material from a fluid in which said material is suspended, comprising a fluid filter, a magnet and a pair of metal plates, said magnet having faces of opposite magnetic polarity, each of said plates being disposed in abutment with a respective one of said magnet faces, each of said plates comprising a plurality of recesses about an outer perimeter of the plate to form radially extending magnetic pole pieces, which extend beyond an outer perimeter of said magnet faces, said plates being oriented so that said recesses and pole pieces on a first of said plates are aligned with said recesses and pole pieces on the second of said plates, wherein opposed recesses on said first and second plates define passage means for said fluid, and wherein said opposed pole pieces on said first and second plates define regions to which ferromagnetic material is attracted and retained, said filter having passage means for said fluid which is continuous with fluid passage through said recesses.

~~28~~ 31. (New) A magnetic filter device as claimed in claim ²⁷~~30~~, wherein said opposed recesses on said first and second plates also define regions from which ferromagnetic material is repelled.

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32. (New) A magnetic filter device as claimed in claim 30, wherein said fluid filter is positioned downstream of said magnet and said second pair of metal plates.

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33. (New) A process for filtering ferromagnetic material from a fluid in which said material is suspended, comprising passing said fluid through a device comprising a device for filtering ferromagnetic material from a fluid in which said material is suspended, comprising a magnet and a pair of metal plates, said magnet having faces of opposite magnetic polarity, each of said plates being disposed in abutment with a respective one of said magnet faces, each of said plates comprising a plurality of recesses about an outer perimeter of the plate to form radially extending magnetic pole pieces, which extend beyond an outer perimeter of said magnet faces, said plates being oriented so that said recesses and pole pieces on a first one of said plates are aligned with said recesses and pole pieces on the second of said plates, wherein opposed recesses on said first and second plates define passage means for said fluid and wherein opposed said pole pieces on said first and second plates define regions to which ferromagnetic material is attracted and retained.

NE → 31
34. (New) A process for filtering ferromagnetic material from a fluid in which said material is suspended, comprising passing said fluid through a device comprising a housing having means at one end for receipt by a containing means of said fluid, said containing means comprising an input means and an output means, said housing having means at the other end to receive a fluid filter, an output of which filter is continuous with a tube in a magnetic filter device and also continuous with the input means to said containing means, said output means from said containing means being continuous with said apertures in said distribution plate and said recesses in said metal plates.

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32/35. (New) A device for filtering ferromagnetic material from a fluid in which said material is suspended, comprises a magnet and a pair of metal plates, said magnet having faces of opposite magnetic polarity, said plates being disposed in abutment with said faces respectively, each plate having a plurality of recesses about an outer perimeter of each plate to form radially extending magnetic pole pieces, which extend beyond an outer perimeter of the magnet faces, said plates being oriented so that the recesses and pole pieces on one plate are axially aligned with those recesses and pole pieces on the other plate, wherein axially opposite recesses define passage ^{means} ~~mans~~ for said fluid and also regions from which ferromagnetic material is repelled, and wherein said pole pieces define regions to which ferromagnetic material is attracted and retained, said device being further provided with a distribution plate having a plurality of apertures which are axially alignable with said recesses, said apertures being the only passage means of fluid to said metal plates, wherein the distribution plate, the magnet and said metal plates are each provided with an aperture which is adapted to receive a tube through which fluid can pass, said tube providing means for isolating, within the device, fluid passage in the tube from fluid flow through the recesses, and wherein each recess and an outer edge of each pole piece is further provided with one or a plurality of slots. ^{allowable}

35/36. (New) A device for filtering ferromagnetic material from a fluid in which said material is suspended, comprising:

a magnet having a first face and a second face with said faces being of opposite magnetic polarity;

a first plate magnetically fixed to the first face of said magnet;

a second plate magnetically fixed to said second face of said magnet,

said first plate having a plurality of recesses about an outer perimeter of said plate to form radially extending pole pieces which extend beyond an outer perimeter of the first face of said magnet;

said second plate having a plurality of recesses about an outer perimeter of said plate to form radially extending pole pieces which extend beyond an outer perimeter of the second face of said magnet;

said first and second plates being arranged so that said recesses and pole pieces of said first plate are aligned with respective recesses and pole pieces of said second plate, and wherein opposed recesses on said first and second plates define passages for said fluid and wherein opposite pole pieces on said first and second plates define regions to which said ferromagnetic material is attracted and retained.

37. (New) The device as recited in claim ³³36 wherein the recesses in each of said first and second plates open out at spaced intervals about a peripheral edge of respective plates.

38. (New) The device as recited in claims ³³36 wherein said pole pieces have formed therein radial slots.

39. (New) The device as recited in claim ³³36 wherein said recesses in said first and second plates are of a common configuration.

40. (New) The device as recited in claim ³⁶39 wherein the pole pieces of said first and second plates are of a common configuration.

41. (New) The device as recited in claim ³³36 wherein the pole pieces of said first and second plates are of a common configuration.

42. (New) The device as recited in claim ³³36 wherein said metal plates are releasably fixed to said magnet and in direct contact with said magnet.